

CLIMATE NEWS

From Sheldon Whitehouse, Barbara Boxer, and Jeff Merkley
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Alaska Searches for Answers to Flood Bursts at Landmark Glacier



The idea that glaciers change at a glacial speed is increasingly false. They are melting and retreating rapidly all over the world. But the flood surges occurring at Alaska's Mendenhall Glacier, about 14 miles from downtown Juneau, are turning a jog into a sprint as global temperatures and climate variability increase. Each summer, since 2011, sudden torrents of water have shot out from beneath the glacier. The largest flood burst released an estimated 10 billion gallons in three days, threatening homes and property along the Mendenhall River, which runs through part of the city. The flood surges are caused by the thinning of the glacier and the buildup of snowmelt, rain, and thawing ice. As water builds up and seeks an outlet, it can actually lift portions of the glacier slightly. Under the pressure of the ice bearing down on it, the water explodes from the glacier. This process, which scientists call "jökulhlaup"—an Icelandic word usually translated as "glacier leap"—is happening around the world as climates change. About 400,000 tourists visit the Mendenhall Glacier each year. To protect residents and visitors, local officials have increased monitoring efforts. (NYT)

Record June Heat Extends Globe's Hot Streak to 340 Months

Last month was the fifth-hottest June on record, according to NOAA scientists. With a global average temperature 1.15°F above the 20th century average, June 2013 tied June 2006 for the fifth-hottest since record-keeping began in 1880. Only Junes 1998, 2005, 2010, and 2012 were hotter. June 2013 also marked the 340th consecutive month with a global temperature above the 20th century average. The last below-average temperature for any month was February 1985. NOAA further reported that the combined global land and ocean average surface temperature for the first six months of 2013 tied 2003 as the seventh-warmest such period on record globally, with a surface temperature 1°F above the 20th century average of 56.3 degrees. In the U.S., several Western states had June weather that ranked among the top 10 warmest on record, including California, Nevada, Utah, Colorado, Arizona, and New Mexico. Monthly record warmth was observed over much of northern Canada, far northwestern Russia, southern Japan, the Philippines, part of southwestern China, and central southern Africa. No record cold was observed over land areas during the month. (USA Today; NOAA)

Forest Service, Scientists Predict Larger, More Severe Wildfires

Once-rare massive wildfires such as the Great Fire of 1910, the Yellowstone fires of the late 1980s, and the Western wildfires of the past two years may soon become the rule, according to forest scientists and Forest Service personnel. The change is already underway, as the number of acres burned in U.S. forests, as well as the severity of the fires, has been increasing steadily over the past 20 years, according to Dave Cleaves, climate adviser to the U.S. Forest Service. "We are now completely certain that there is a climate signal in the observed fire activity," Cleaves said. "Fire, insects, disease, and moisture stress are all being linked more closely by climate change." Scientists believe that parts of the Southwest and the northern and north-central Rockies were on the cusp of climatic tipping points and have since crossed over. Previously, the climate remained cool enough that fire was held in check. But in these areas, temperatures are now regularly above the point where climate can play a role in mitigating fire. (ClimateWire)

Multinational Companies Examining Climate Resilience

Many large multinational companies view the extreme weather events of 2012 as a benchmark for building climate resilience, according to a new report from the Center for Climate and Energy Solutions (C2ES). C2ES found that 90% of the S&P Global 100 firms now identify extreme weather and climate change as risks. Most have experienced the effects of climate change already or expect to within the next decade. Among the top concerns the companies identified are damage to physical facilities; loss or disruption of water, power supplies, or both; and the disruption of supply and distribution chains. While awareness of climate risks is high, the report also found that investments in resilience measures have yet to catch up. Resilience planning is most evident among the growing number of companies that face annual threats from weather events. National Grid spokesman Fred Kuebler said the firm began to assess and respond to climate risk 10 years ago, when Hurricane Isabel swept across New York, causing an estimated \$90 million in damage. "These kinds of things don't get fixed overnight," he said. "But we believe over time our customers will benefit from making these systems more resilient to these kinds of extreme storms." (ClimateWire)

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